

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection & Quarantine
4700 River Road
Riverdale, MD 20737

**Controlled Import Permit to Import Restricted or Not Authorized Plant
Material**
Regulated by 7 CFR 319.6

This permit was generated electronically via the ePermits system

PERMITTEE NAME:	Dr. Eduardo Blumwald	PERMIT NUMBER:	PCIP-19-00143
ORGANIZATION:	Univeresity of California Davis	APPLICATION NUMBER:	P588-190219-005
ADDRESS:	612 Jerome St. Davis, CA 95616	DATE ISSUED:	04/10/2019
MAILING ADDRESS:	612 Jerome St. Davis, CA 95616	FACILITY NUMBER:	3993
PHONE:	(530) 304-3761	EXPIRES:	04/10/2021
FAX:			
GROWING LOCATION:	Core greenhouse Extension Drive One Shields UCDAVIS Davis, CA 95616		

PORTS OF ENTRY: MD, Beltsville

Under the conditions specified, this permit authorizes the following:

<u>Article(s)</u>	<u>Countries of Origin</u>	<u>Plant Parts</u>	<u>Grown in U.S.</u>	<u>Intended Use</u>	<u>Total Quantity</u>	<u>Number of Shipments</u>
Wheat Seeds	Israel	Seed	Yes (Greenhouse)	Biotechnology	Packs	4

SPECIAL INSTRUCTIONS TO INSPECTORS

See permit conditions below

seeds should be free of pest and signs and symptoms of disease.


PERMIT CONDITIONS

This permit authorizes the importation of the listed articles, under the conditions specified below. A copy of this permit (including all conditions) must accompany all shipments authorized under this permit.

In addition to this permit, genetically engineered plant materials regulated by 7 CFR Part 340 must be imported with a valid APHIS 2000 Permit or Notification. Please call (301) 851-3935 or email Biotechquery@aphis.usda.gov for more information.

Receipt or use of foreign isolates or samples from countries under sanctions requires specific permission from the U.S. Department of Treasury (see <http>)

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THIS PERMIT HAS BEEN APPROVED ELECTRONICALLY BY THE FOLLOWING PPQ HEADQUARTER OFFICIAL VIA EPERMITS.	DATE
 Pauline Spaine	04/10/2019

WARNING: Any alteration, forgery or unauthorized use of this Federal Form is subject to civil penalties of up to \$250,000 (7 U.S.C.s 7734(b)) or punishable by a fine of not more than \$10,000, or imprisonment of not more than 5 years, or both (18 U.S.C.s 1001)

[://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx](http://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx) for current country/regional listings) for current country listings.

Any person who violates the Plant Protection Act (PPA) of the United States, individuals or corporations who fail to comply with these conditions and authorizations, or who forge, counterfeit, or deface permits may be criminally or administratively prosecuted and found guilty of a misdemeanor which can result in penalties, a one-year prison term, or both. Additionally, any person violating the PPA may be assessed civil penalties of up to \$250,000 per violation or twice the gross gain or gross loss for a violation that results in the person deriving pecuniary gain or a pecuniary loss to another, whichever is greater. In addition, all current permits may be cancelled and future permit applications denied.

This APHIS-issued import permit only covers compliance with APHIS regulations and requirements. Therefore, this APHIS permit for the commodity to be imported does not reduce or eliminate the permittee's legal duty and responsibility to likewise comply with all other Federal and State regulatory requirements applicable to the commodity to be imported.


This permit authorizes the importation of wheat seed from the countries listed on the permit to Eduardo Blumwald, University of California Davis in Davis, California for research and performance evaluation)in the approved facility (#3993).

1. A person who is issued a permit and his/her employees or agents, shall comply with the following conditions, as deemed by the Administrator to be necessary to prevent the dissemination and establishment of plant pests:

The permit holder must:

- (a) maintain an official permanent work assignment at the address on this permit,
- (b) maintain the permit solely by the permittee, and cannot be assigned or transferred. The APHIS PPQ permit unit must be notified to transfer permit ownership,
- (c) maintain a valid permit as long the regulated plant material is under quarantine and in their possession,
- (d) maintain the regulated plant material only in areas and premises specified in the permit, and dispose of them as prescribed in the permit conditions,
- (e) contain any/all plant pests/pathogens observed on regulated plant material and report to the APHIS PPQ permit unit,
- (f) notify the APHIS PPQ permit unit of any signs of potential disease symptoms such as wilting, dieback, dying or sudden death, along with accidental release or destruction of regulated plant material,
- (g) notify the APHIS PPQ permit unit of the receipt of any unauthorized plant material not listed on the permit,
- (h) notify the APHIS PPQ permit unit within 3-5 days if facilities are renovated, destroyed or decommissioned for any reason,
- (i) destroy all regulated plant material prior to departure from the approved facility unless other arrangements are confirmed by the APHIS PPQ permit unit prior to the permit holder's departure,
- (j) notify the APHIS PPQ permit unit by phone 877-770-5990 or email

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Controlled.import.permits@aphis.usda.gov within 3-5 days of an event triggering an unusual occurrence of/or unanticipated effect on the regulated plant material.

2. The wheat seeds are to be selected from apparently disease-free and pest-free sources, free of weed seeds (including noxious weed seeds), soil, and other prohibited matter, securely packaged to prevent loss in transit, and sent to the Plant Germplasm Inspection Station (PGIS) in Beltsville Maryland, using the enclosed green and yellow label(s). A label must be securely attached to the exterior of each package being imported under this permit and must bear the address of the designated Plant Inspection Station. **DO NOT PLACE ANY OTHER DELIVERY ADDRESS ON THE OUTSIDE OF THE PACKAGE.** All costs and arrangements for transportation to and from the PGIS, is the responsibility of the importer.
3. Fungicidal or insecticidal dusts, powders, slurries, etc., should not be applied before shipment. If pesticides are found, seeds will be returned to the shipper.
4. Upon arrival at the PGIS, the seeds will be inspected by a representative of Plant Protection and Quarantine (PPQ) and if found apparently free from exotic plant pests, diseases, weed seeds (including noxious weed seeds), soil, and other prohibited matter, will be returned to the mail or to the carrier for delivery to the permittee.
5. Upon arrival of each shipment, the permittee shall notify Anthony Jackson, USDA PPQ SPHD office by both phone (916) 930-5536 and email Anthony.S.Jackson@aphis.usda.gov and the Yolo County Agricultural Commissioner's office at (530) 666-8140.
6. Prior to use, all imported plant materials are to be labeled "Quarantined material - to be used only in accordance with a valid Departmental permit", and are to be stored in a locked cabinet or other secure place under the control of the permittee to prevent pilferage and unauthorized use.
7. The growing plants shall be examined during the seedling stage, before heading, and after heading by the Permit Holder's Pathologist for evidence of plant diseases, especially exotic strains of the flag smut disease: twisting and bending of the coleoptile in the seedling stage with the formation of bleached spots on the coleoptile. Later, greyish black linear sori on the older leaf blades and leaf sheaths. Any plants showing evidence of disease are to be immediately rogued and destroyed by incineration or autoclaving. It will be the responsibility of the permittee to notify the inspecting pathologist so that inspections can be fitted into the pathologist's workload.
8. If flag smut or any exotic disease organism is detected in the greenhouse where the imported wheat is grown, the permittee shall immediately notify PPQ at 1-887-770-5990. and the State Plant Health Directors office of Anthony Jackson (916-930-5536).
9. Before general harvesting and threshing, a sample should be taken, threshed in a room, and examined by the Permit Holder's Pathologist for Karnal bunt. The sample could be 3 to 4 heads from 20 percent of the lines with each line threshed separately if seed is needed or by a bulk threshing if seed can be discarded. If sample is negative, proceed with harvesting and threshing.

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10. After seed harvest, all vegetative parts of the plants, as well as the medium in which they grew, shall be sterilized in an autoclave or incinerated. All plant material of the same genus which have not been segregated from the imported materials shall be similarly autoclaved or incinerated. All containers (including shipping containers) which were used for imported plant materials shall be destroyed or autoclaved after use. The greenhouse bench must be disinfected with 1 part of sodium hypochlorite (5.25 percent) to 4 parts water. All utensils, equipment, etc., which came into contact with imported plant materials shall be sterilized or thoroughly cleaned with wash water being boiled for 15 minutes or disposed of into a municipal sewer system.

11. The facilities where the work is performed with the imported plant materials are subject to inspection by a PPQ representative. The importer is responsible to provide appropriate documentation to the State Plant Health Director for the imported material under this permit.

12. All seeds produced are to be examined by the Permit Holder's Pathologist for evidence of Karnal bunt (*Tilletia indica*). If such evidence is found, notify PPQ at Area Code 1-877-770-5990. Negative results of inspection should be reported to PPQ within 3-5 days of inspection.

13. The imported plant material is to be used for developmental (commercial) / breeding inside the designated, screened enclosure in the greenhouse at One shields Core Greenhouse, UC Davis CA.

Each shipment of imported plants shall be kept separate from all other plants and all non-permit plant material.

Access to the plant material must be limited to you, those you authorize who need to care for the plant material and Athar Tariq (plant pathologist listed on application), your designated Plant Pathologist, APHIS PPQ and State officials.

Prior to release, neither the imported material (nor increases) may be distributed to any person or location unless approved in advance by Plants for Planting office (email: controlled.import.permits@aphis.usda.gov). All related plant waste will be autoclaved prior to disposal. If steam is used, material must be double bagged and buried in municipal landfill.

14. This permit does not authorize growing of wheat outside the designated greenhouse nor the transfer of imported seeds to anyone else

15. Quarantine evaluation: The growing plants shall be examined during the seedling stage, before heading, and after heading by the Permit Holder's Pathologist for evidence of any plant diseases.

- Quarantine period for *Triticum* spp. is one growing cycle (3 to 6 months)

- Plants must be evaluated, and symptomatic plants tested for suspect pathogens including, but not limited to the following organisms:

Fungi: *Bipolaris sacchari*, *Puccinia graminis* f.sp. *tritici*, *Urocystis tritici*; *Pyricularia graminis-tritici* (Wheat blast), *Tilletia indica* (Karnal bunt) and *Urocystis agropyri* (Flag smut).

Nematodes: *Anguina tritici*; and,

Viruses: Rice stripe virus, Oat sterile dwarf virus, Rice black streak dwarf virus, Maize streak virus,

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Indian peanut clump virus and Peanut clump virus.

16. Fungicidal or insecticidal dusts, powders, slurries, etc., shall not be applied before shipment. If pesticides are found, seeds will be returned to the shipper.

17. Flag Smut specific quarantine evaluation: These conditions apply if the seed originate from Afghanistan, Algeria, Armenia, Australia, Azerbaijan, Bangladesh, Belarus, Bulgaria, Chile, China, Cyprus, Egypt, Estonia, Falkland Islands, Georgia, Greece, Guatemala, Hungary, India, Iran, Iraq, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Latvia, Libya, Lithuania, Moldova, Morocco, Nepal, North Korea, Oman, Pakistan, Portugal, Romania, Russia, Spain, Tajikistan, Tanzania, Tunisia, Turkey, Turkmenistan, South Africa, South Korea, Ukraine, Uzbekistan, and Venezuela.

a) Symptoms include twisting and bending of the coleoptile in the seedling stage with the formation of bleached spots on the coleoptile. Later, long grey-black streaks with greyish black linear sori develop on the older leaf blades and leaf sheaths. b) Any plants showing evidence of disease are to be immediately rogued and destroyed by incineration or autoclaving. The suspect pathogen(s) must be identified by taking samples before destruction of infected material with oversight of the assigned plant pathologist. b) After seed harvest, all vegetative parts of the plants, as well as the medium in which they were grown, must be sterilized in an autoclave or incinerated.

Karnal bunt specific quarantine evaluation:

These conditions apply if the seed originate from Afghanistan, India, Iran, Iraq, Mexico, Nepal, Pakistan, and South Africa.

a) Disease symptoms on seed include discoloration of kernels; the dark colored teliospores may be viewed under a microscope.
b) Before general harvesting and threshing, a sample should be taken, threshed in a contained room, and examined by the Permit Holder's Pathologist for Karnal bunt disease (*Tilletia indica*). The sample should be 3 to 4 heads from 20 percent of the lines with each line threshed separately if seed is needed or by a bulk threshing if seed can be discarded.
c) Threshing of harvested heads is to be done only in a room/area that can be disinfected if Karnal bunt disease is found. The greenhouse benches/platforms must be disinfected as described in this permit under disinfection conditions.

END OF PERMIT CONDITIONS

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